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WPIC/TDS/D-668-67
6 February 1967

MEMORANDUM FOR: Director for Special Activities, DD/SAT

ATTENTION : Chief, Contracts Branch, OSA-DD/SAT

SUBJECT : A No-cost Change-in-Scope to [REDACTED]

25X1

REFERENCE : "Proposed Change in Scope for the GEMS Study Effort"
January 6, 1967 by [REDACTED] (Attached)

25X1

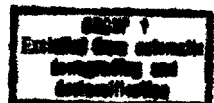
1. It is requested that a Change-in-Scope be effected to this contract task. This Change-in-Scope is a re-direction of effort and does not entail increased cost. It does include a modified work statement and an extended completion date to 30 September 1967.

2. Technical problems encountered in the work to date and the discovery of a potentially superior method of GEMS production strongly suggest that this project be modified in accordance with the attached proposal. The primary technical problem encountered is the inability to realistically simulate the modulation transfer function of mission material at high resolution (135 mm) on printed GEMS. This is because the mission negatives, from which the GEMS are made, were processed at too high a gamma. The production of realistic printed GEMS, therefore, may require some special photography to be flown in an aircraft so that the resulting material can be processed at unity gamma. Unity gamma processing is now thought to be necessary for printed GEMS negatives in order that they simulate the M.T.F. of mission material processed at the higher gamma. However, further theoretical work is required before this special photography can be specified. Initial investigation of pseudo-GEMS indicates that this optical, real-time GEMS technique may be superior to printed GEMS. Further work is now justified for more detailed investigation of Pseudo-GEMS.

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[REDACTED]

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3. This re-direction of effort would result in the cancellation of one of the original tasks, namely, to produce a large matrix of printed GEMS. This matrix is, of course, unjustified at present in view of the difficulties encountered as stated above. The funds which were to be expended on this matrix can now be programmed against the new tasks so that additional funds are unnecessary.

[REDACTED]
Colonel, USAF

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Assistant for Technical Development, NPIC

Attachment: Proposed Change in Scope for the GEMS Study Effort

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